December 21, 1992

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

IN THE MATTER OF ADVANCED TELEVISION SYSTEMS AND THEIR IMPACT UPON THE EXISTING TELEVISION BROADCAST SERVICE.	)))))	MM Docket No. 87-268

COMMENTS OF ZENITH ELECTRONICS CORPORATION

Zenith Electronics Corporation is pleased to respond to the Third Report and Order and Further Notice on Advanced Television Systems ("Notice"). As a leading consumer electronics and cable products manufacturer and as a High Definition Television (HDTV) system proponent, Zenith has an extraordinarily strong interest in the outcome of these proceedings.

Zenith is the only major independent U.S.-owned manufacturer of color television and high-resolution color cathode ray tube displays and is a leading supplier of headend and decoder equipment to cable TV operators. Zenith is an active participant in the work of the FCC's Advisory Committee on Advanced Television Service (ACATS) and, teamed with AT&T, is the proponent of an HDTV system candidate in these proceedings.

The Commission continues to make important, constructive strides in defining the principles and environment under which terrestrial HDTV can flourish. Zenith supports the decisions put forward in this third major action, especially the formalization of the implementation and conversion timetable and a timely process for review of the various deadlines. These comments address some of the key issues raised in the Notice, ordered by paragraph number.

Future Technological Advances (Paragraph 59)

The Commission, at Paragraph 59, states its intent to consider future authorization of advanced video applications "so long as they are compatible with the ATV system we select." Zenith assumes "compatible" means that, during such advanced video operations, HDTV service continues without interruption or degradation to the then pre-existing HDTV receivers designed to operate on the HDTV standard.

Zenith supports the concept of future advances, whether to video, audio or ancillary services, to the extent they can be accomplished compatibly with the then-existing receiver population, and without compromising the best spectrum utilization or HDTV picture/sound performance available from the candidate systems. We encourage the FCC to seek standards language and physical provisions to facilitate this, and in so doing, to remain mindful of the primary purpose for which the channels are being authorized -- that is, for delivery of HDTV.

Zenith and AT&T are working to make the DSC-HDTV system consistent with the Advanced Television Systems Committee's recommendations that new audio developments be accommodated and that provisions be made for flexible use of the audio/video data stream. In addition, Zenith has developed a compatible 16-level digital transmission technology extension of the DSC-HDTV modulation system. The new system would enable two HDTV signals, or the equivalent, to be carried on a single 6-MHz Cable TV channel.

Ancillary Services - Paragraph 77

Paragraph 77 asks several questions about proposals to use HDTV data space for ancillary purposes. The NTSC precedents cited include program-related uses, including for example, various insertions in the vertical blanking interval and second audio programming in the NTSC audio channel. The thrust of the Fox and MSTV proposals cited, however, is for non-program revenue generating use. Zenith believes:

- Program-related uses clearly should be permitted under conditions similar to those applied to NTSC: no interference, no degradation.

- Non-program revenue uses of excess data capacity should be permitted during HDTV transmission on a similar no- interference, no-degradation basis. The Commission may find it important to discourage broadcasters from reducing the HDTV video/audio quality of transmissions to generate additional revenue-generating data space.

- Revenue use when the channel is not in TV broadcast use should be permitted on a non-interfering basis. The primary use of the channel -- for HDTV broadcasting -- should be encouraged by limiting the non-broadcast hours of ancillary use.

Dual-Mode Receivers - Paragraph 81

Zenith reiterates that, without any FCC action, manufacturers will offer a wide selection of receivers capable of receiving and displaying both HDTV and NTSC signals throughout the transition period. Virtually all HDTV receivers will include NTSC-compatibility because of the following market-driven considerations:

- NTSC capability will be important to early purchasers of HDTV receivers, throughout the several years before HDTV broadcasting becomes widespread;
- the HDTV receiver will be the primary TV instrument in the consumer's home and will be expected to receive and display TV from any source;
- broadcasting, cable, and VCRs will continue to include NTSC sources throughout the transition period and, for cable and VCR, perhaps even beyond; and
- the cost/price increment for NTSC reception is modest in the context of the consumer's HDTV investment.

There is no reason or justification for the FCC to establish additional legal machinery to insure availability of dual-mode receivers. The reporting and administration of unnecessary regulation is a burden both to the FCC and to manufacturers -- and ultimately to consumers and to the public at large.

Zenith agrees with the statements in Paragraph 81 that the All-Channel Receiver Act does not preclude selection of an HDTV system requiring new receivers or require the manufacture of dual-mode receivers. That Act and its implementing regulations were intended to serve an entirely different purpose from that involved in making the transition to a superior transmission system.

In its earlier comments, Zenith estimated consumer cost of NTSC-capability in a dual-mode HDTV receiver to be in the $50-$100 range.[1] Zenith still believes that this estimate, a very small percentage of total HDTV receiver cost, is realistic during the transition period.

If a market develops for HDTV-only receivers late in the transition process, consumers in that market would be unnecessarily required to pay such dual-mode costs if such receivers were mandated. Given lead-time requirements, manufacturers have a difficult enough time as it is responding to emerging markets. If a legal impediment also were to exist, it would be even harder to respond in a timely fashion to those consumers who may want a specialized receiver without NTSC capability.

[1]Zenith comments July 1992.

At Paragraph 81 of the Notice, concern is expressed about the "relative costs of dual-mode receivers, as opposed to NTSC sets supplementally equipped with downconverters." We point out that dual-mode HDTV receivers and downconverters added to NTSC receivers do not seek or achieve the same end: dual-mode reception makes an HDTV receiver more generally useful by allowing the consumer to receive the full benefits of the two co-existing systems; downconversion is an alternative to simulcast in protecting the consumer's investment in NTSC equipment. It is not meaningful to compare a dual-mode increment with the cost of downconversion.

If the question seeks to compare the retail price of two NTSC/HDTV "packages" without regard to NTSC versus HDTV level of performance, a "crude estimate" can be given, for comparable display height. A newly purchased 27-inch diagonal NTSC receiver plus a downconverter (initially priced at even as much as $500) would be about $1,000-$1,500 less costly to the consumer than a wide-screen HDTV dual-mode receiver of comparable picture height. Of course, the NTSC receiver plus downconverter remains much more costly to consumers than relying on simulcast to receive HDTV programming at NTSC performance levels on their NTSC receivers. Zenith continues to believe that the appropriate role for downconverter boxes will be during the NTSC phase-out period to provide continuing utility for remaining NTSC receivers.

Conclusion

Zenith supports future advances as long as they can be implemented in a compatible, non-interfering manner, and Zenith discourages the Commission from requiring HDTV sets to be dual-mode receivers (marketplace factors will make dual-mode receivers a reality). As an HDTV system proponent and active participant in many of the ACATS Working Parties, Zenith will continue to support the Commission's efforts to promote the timely introduction of HDTV service.

Respectfully submitted,

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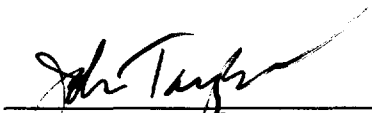
CERTIFICATE OF SERVICE

I, John I. Taylor, hereby certify that a true copy of the foregoing "Comments of Zenith Electronics Corporation" were served this 21st day of December, 1992, by First Class U.S. Mail, postage prepaid, upon the party listed below.



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